Amendment dated May 8, 2006

Reply to Office Action of February 8, 2006

## **REMARKS/ARGUMENTS**

Reexamination and reconsideration of this application, withdrawal of the rejections, and formal notification of the allowability of all claims as now presented are earnestly solicited in light of the above claim amendments and remarks that follow.

Claims 28-30 have been canceled in light of the Examiner's maintenance of the previously imposed restriction requirement. Applicant, however, expressly reserves the right to pursue the subject matter of the canceled claims in one or more divisional applications. Claims 1-7, 10-15, 17, 19-21, 24, 26, and 31-37 are pending in the present application.

Claims 1, 3-7, 10-14, 17, 19-21, 24, 26, and 32-37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,908,687 in view of U.S. Patent No. 4,260,703. The Office admits the '687 patent fails to teach the use of a cross-linked resin. The Office alleges, however, that the '703 patent discloses curable urethane-acrylate coatings (which the office equates to cross-linking) and argues it would be obvious to use the cured urethane-acrylates of the '703 patent in the resin layer of the '687 patent. Applicant respectfully traverses this rejection.

Applicant respectfully submits the Examiner has failed to show proper motivation for combining the cited references. The '687 patent is directed to a heat-sensitive stencil and a method of fabricating the same. The '703 patent is directed to coatings in general and provides a broad disclosure relating to application of coatings by a wide variety of methods and to a wide variety of substrates, although none of them specifically relating to heat-sensitive stencils. Nothing in either reference can be pointed to as suggesting or motivating one of skill in the art to seek out the other and combine the teachings thereof.

The object of the '703 patent is to provide coating compositions that can replace solvent-based coatings, particularly pointing to the many problems associated with solvent-based coatings (*e.g.*, energy costs in driving off the solvents, the cost of the solvents themselves, and the environmental concerns related to evaporating solvents) (see column 1, lines 6-19). To reach this object, the '703 patent discloses urethane-acrylate compositions that can be used as radiation-curable coating compositions that avoid the above-noted problems. The remainder of the '703 patent is dedicated to generally describing various compounds useful in the invention

Amendment dated May 8, 2006

Reply to Office Action of February 8, 2006

and methods of reacting the compounds, including photoinitiation, to form its urethane-acrylate compositions. The only teaching a skilled artisan would take from the '703 patent is that radiation-curable coating compositions are a desirable alternative to environmentally unfriendly compositions relying on solvents. This certainly provides no motivation to seek out and combine the '687 patent with the teachings of the '703 patent.

The '703 patent provides only general disclosure related to its compositions and provides no specific teaching as to any particular uses for the compositions. The '703 patent notably fails to touch on any considerations that must be taken into account when manufacturing a heat-sensitive stencil master or a stencil formed therefrom. Accordingly, one of skill in the art viewing the '703 patent would find no teaching or suggestion therein to use any of the compositions disclosed in the '703 patent in forming a stencil master, as disclosed in the '687 patent.

Likewise, the skilled artisan would find no teaching or suggestion in the '687 patent that would lead to seeking out and combining it with the teachings of the '703 patent. As pointed out in the previous response, the '687 patent includes absolutely no teaching or suggestion related to cross-linking. The Office argues it is not relying on the '687 patent to teach cross-linking; however, Applicant respectfully submits that absent some teaching related to cross-linking, there can be no motivation found in the '687 patent to combine it with the '703 patent. The desire to improve strength through cross-linking is the only connection between the two references suggested by the Office. However, the Office admits the '687 patent makes no mention of cross-linking, and Applicant submits the '687 patent makes no mention of any desire to seek out other methods to increase strength apart from its incorporation of fibers.

The Office argues motivation to combine the references arises from the desire to increase resin stiffness in the '687 patent by incorporating the resin from the '703 patent. This completely disregards the teaching of the '687 patent. As noted above, the '687 patent particularly addresses the issue of tensile strength and stiffness through addition of fibers. Accordingly, a skilled artisan viewing the '687 patent would no find motivation to seek out other methods to improve tensile strength. Accordingly, Applicant respectfully submits the Office has

Amendment dated May 8, 2006

Reply to Office Action of February 8, 2006

simply failed to point to any portion of either the '687 patent or the '703 patent that would motivate a skilled artisan to seek out the other and combine the teachings thereof.

Not only is there lack of motivation to combine the references, Applicant submits the references actually <u>teach away</u> from such a combination. In particular, Applicant submits a skilled artisan armed with the disclosure of the '687 patent and the '703 patent would recognize that the underlying chemistry of the two disclosures is actually incompatible.

The '687 patent requires a porous foam coating formed on a heat-sensitive polymeric film. Such is achieved by using a resin capable of incorporation (either in solution, emulsion, or dispersion form) into a volatile liquid that, when foamed, can be dried to form a solid foam (see column 5, lines 53-65 of the '687 patent). By contrast, the '703 patent nowhere discloses the use of foam coatings, or that it might be possible to form such foam coatings. In light of the objects of the '703 patent, as pointed out previously, the use of solvents, particularly volatile solvents, is directly against the teaching of the '703 patent.

Moreover, Applicant points out that the resins used in the '687 patent are solids. However, particularly in light of the desire to avoid solvents, the resins of the '703 patent are liquid (and necessarily so to be used as coatings in the absence of solvents). If the liquid compositions of the '703 patent were formed into a foam, such would not be expected to be stable and would rather begin collapsing immediately after foam formation. While the radiation-curing of the foams would be expected to stabilize the foams, the period of time between foaming and curing would result in a foamed coating that is of poor quality and not suitable for the purpose of the '687 patent, that being to form a heat-sensitive stencil. A skilled artisan would immediately recognize these deficiencies and would not be motivated to combine the references and would rather disregard the '703 patent as teaching compositions incompatible with the objects of the '687 patent.

Applicant further points out that a skilled artisan would easily recognize that any liquid foam created in the absence of a volatile solvent, as would result from the combination proposed by the Office, would be expected to have thick cell walls. Such thick cell walls, however, are opposite what is required in a stencil master or stencil of the type used in digital duplication. To function as a stencil, it is necessary that the foam coating have thin cell walls to allow passage of

Amendment dated May 8, 2006

Reply to Office Action of February 8, 2006

ink without blocking the image holes formed in the underlying heat-sensitive polymeric film. Thick cell walls would be expected to block these image holes, rendering the stencil useless. Accordingly, the skilled artisan would avoid combination of the teachings of the '687 patent and the '703 patent for this reason also.

As pointed out above, Applicant respectfully submits the cited references have been improperly combined to arrive at the present invention. There is no motivation in either reference to combine it with the other, and in fact, the references have been shown to disclose compositions that are incompatible and thus teach away from combination of the references. Therefore, even if a skilled artisan considered the teachings of the two references together, the skilled artisan still would not seek to combine the disclosures thereof. Accordingly, not only is there a lack of motivation to combine the references, an attempt to combine the references still would not result in the presently claimed invention. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the present rejection.

Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,908,687 in view of U.S. Patent No. 4,260,703 and U.S. Patent No. 4,082,887. Applicant respectfully traverses this rejection.

Applicant respectfully submits the Office has again failed to show proper motivation for combining the references. In particular, the '887 patent is directed to coating compositions for fibrous, nonwoven polyolefin sheets to particularly provide a water barrier, antistatic, and antislip properties. The '887 patent in no way relates to the field of heat-sensitive stencils or stencil masters. As such, the Office has failed to point to any portion of the '887 patent that would provide motivation or suggestion to the skilled artisan to combine the '887 patent with the '687 patent or the '703 patent.

Moreover, Applicant again points to the deficiencies of the combination of the '687 patent and the '703 patent. In particular, the Office has failed to show any motivation for combining the references to arrive at the present invention, and the Office has failed to recognize that the '687 patent and the '703 patent disclose incompatible compositions and a skilled artisan would not attempt to make the alleged combination. Further, the Office has pointed to nothing in

Amendment dated May 8, 2006

Reply to Office Action of February 8, 2006

the '887 patent that solves the above-noted problems. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the present rejection.

Claim 15 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,908,687 in view of U.S. Patent No. 4,260,703 and U.S. Patent No. 3,804,700. Applicant respectfully traverses this rejection.

Again, Applicant respectfully points out that the '700 patent is not properly combinable with the '687 patent as the '700 patent relates to a completely different field of endeavor, particularly to decorative laminates, such as simulated oil paintings. Accordingly, a skilled artisan seeking to modify the '687 patent would have no motivation to turn to the '700 patent. Moreover, Applicant again points the Office to the deficiencies previously described in reference to the combination of the '687 patent and the '703 patent, and Applicant respectfully submits the '700 patent fails to remedy these deficiencies. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the present rejection.

Claim 31 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,908,687 in view of U.S. Patent No. 4,260,703 and U.S. Patent No. 6,357,347 (cited as an English equivalent of JP 11-179699). Applicant respectfully traverses this rejection.

Applicant once again respectfully points to the deficiencies of the underlying combination of the '687 patent and the '703 patent. As previously noted, the Office has failed to show any motivation for combining the references to arrive at the present invention, and the Office has failed to recognize that the '687 patent and the '703 patent disclose incompatible compositions and a skilled artisan would not attempt to make the alleged combination. Further, the Office has pointed to nothing in the '347 patent that solves the above-noted problems. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the present rejection.

For the reasons provided above, Applicants respectfully submit all claims are in condition for allowance. Accordingly, Applicant respectfully requests that all rejections be withdrawn and a Notice of Allowance be issued in due course. If any minor informalities need to be addressed, the Examiner is directed to contact the undersigned attorney by telephone to facilitate prosecution of this case.

Amendment dated May 8, 2006

Reply to Office Action of February 8, 2006

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR §1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

/rcagle/

Ryan W. Cagle Registration No. 47,468

DATE: May 8, 2006

Customer No. 00826 ALSTON & BIRD LLP Bank of America Plaza 101 South Tryon Street, Suite 4000 Charlotte, NC 28280-4000 Tel Raleigh Office (919) 862-2200

Fax Raleigh Office (919) 862-2260

E-FILING